No. 869,427. PATENTED OCT. 29, 1907.

JAMES McI. DOBBIE, Sr. & JOHN McI. DOBBIE.

TRAVELING FRAME FOR SIDE SHELL RIVETERS.

APPLICATION FILED AUG. 14, 1906.

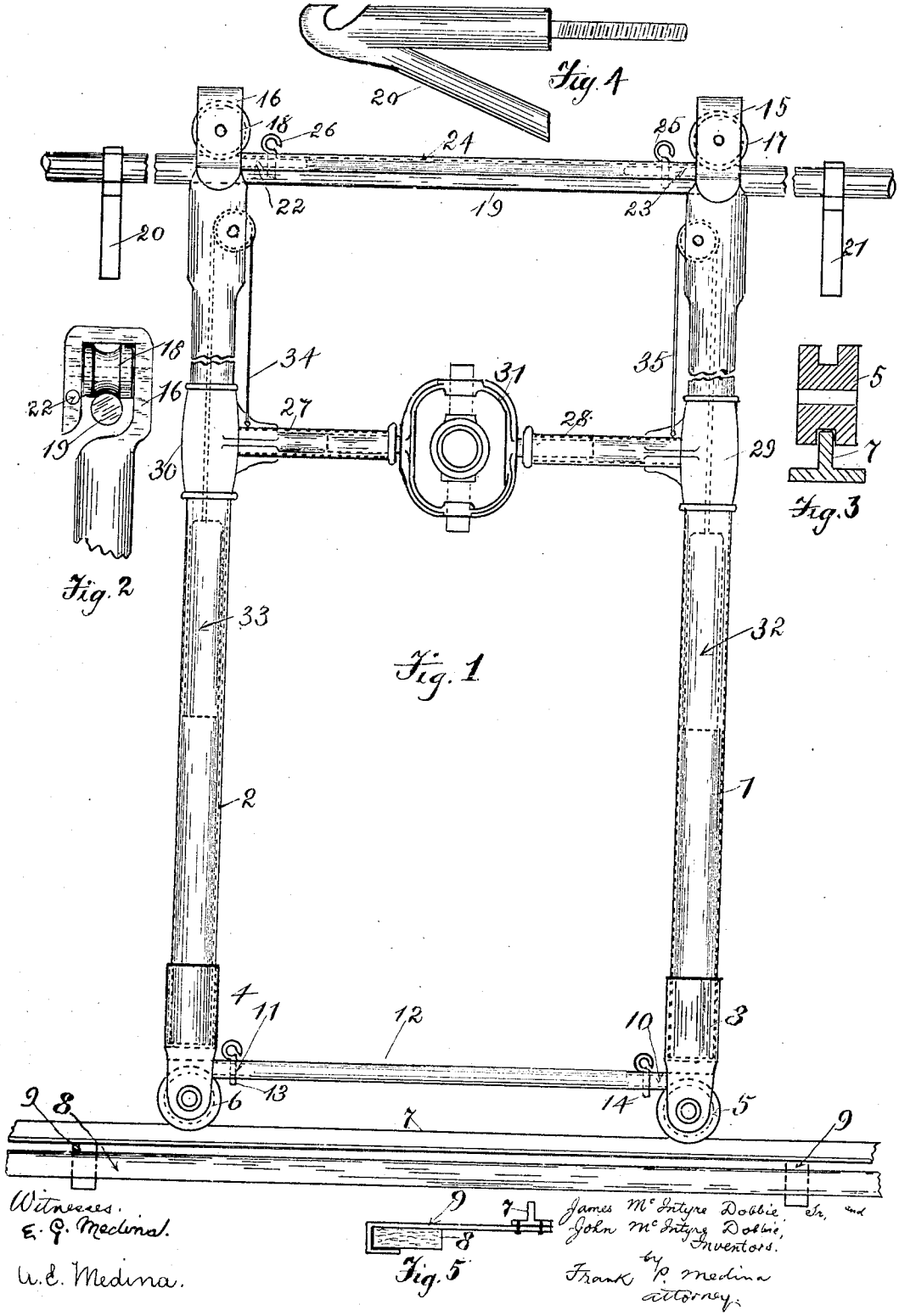


Fig. 4

Fig. 2

Fig. 3

Fig. 1

Fig. 5

Witnesses.
E. G. Medina.
W. E. Medina.

James McIntyre Dobbie Sr. and
John McIntyre Dobbie,
Inventors.
by Frank P. Medina
attorney.

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES McINTYRE DOBBIE, SR., AND JOHN McINTYRE DOBBIE, OF SAN FRANCISCO, CALIFORNIA.

TRAVELING FRAME FOR SIDE-SHELL RIVETERS.

No. 869,427. Specification of Letters Patent. Patented Oct. 29, 1907.

Application filed August 14, 1906. Serial No. 330,566

To all whom it may concern:

Be it known that we, JAMES McINTYRE DOBBIE, Sr., and JOHN McINTYRE DOBBIE, citizens of the United States, and residents of the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Traveling Frames for Side-Shell Riveters, of which the following is a specification.

In the construction of metal ships, the rivets which hold the plates together are usually driven by pneumatic riveters held in the hands of the operator.

Our invention is designed to hold said pneumatic riveters in the desired positions and to relieve the operator from the jar and strain incident to holding the same.

The object of our invention is to provide new and improved means for operating a pneumatic riveter on the sides of ships or in other suitable places.

Our invention consists in providing in a traveling frame, improved means for taking said frame apart and setting it up.

It also consists in providing in a traveling frame, new and improved means for supporting said frame, having in view the aforesaid means for taking said frame apart and setting it up.

It also consists in providing means for preventing the jarring of traveling frames attached to staging caused by persons walking on said staging.

It also consists in new and improved means for securing the bottom part of a traveling frame to the staging about a ship.

It also consists in novel details of construction detailed below.

We accomplish our object by the means illustrated in the accompanying drawing of which

Figure 1 is a view in elevation of our invention; Fig. 2 a detail view showing the means of suspending our device; Fig. 3 a detail view of the T rail and trolley wheel herein described; Fig. 4 a detail view showing a bracket for securing our device to a ship's side; and Fig. 5 a detail view showing one of the staging clamps referred to herein.

Similar numerals of reference refer to similar parts throughout the various views.

Proceeding to describe our device, 1, 2, are stanchions of light steel tubing. Slidable over the outer surfaces thereof are boots 3, 4, provided with trolley wheels 5, 6. Said trolley wheels run on a track 7, of T-iron, secured to the staging 8 about the ship by the staging clamps 9, shown in Fig. 5 riveted to said T-rail. Boots 3, and 4, are provided with arms, shown in dotted lines at 10, 11, which slide into the hollow cross bar 12, and are secured therein by eye-pins 13, and 14. Said stanchions terminate in heads, 15, 16, a side view whereof is shown in Fig. 2. Said heads are provided with trolleys 17, 18 which roll on a pipe 19 suspended from brackets 20, 21, a side view whereof is shown in Fig. 4. Said brackets are bolted to the ship through the rivet holes therein. Heads 15, 16, carry arms shown in dotted lines at 22, 23, in Fig. 1 and situated as shown at 22 in Fig. 2. Said arms slide into a hollow cross bar 24 and are secured therein by eye-pins 25, 26. We provide a pair of sliding arms 27, 28, secured to sleeves 29, 30, arranged to slide longitudinally along said stanchions. Said arms have for their function the carrying of the pneumatic riveter, indicated at 31, which they do by providing said riveter with arms slidable into arms 27, and 28. Counterweights, shown in dotted lines at 32, and 33, attached to arms 27, and 28 by flexible wire ropes 34, 35, are provided, which act to maintain arms 27, and 28, in any position on the stanchions 1, and 2 in which they may be placed. The weight of riveting device is carried by pipe 19 supported by the bracket 20, 22, and is not supported by T-rail 7. This expedient relieves the staging 8 of the weight of the apparatus, the trolleys 5, and 6 acting wholly to keep it on the track. Brackets 20 and 21 are placed about 30 feet apart, which gives a corresponding distance through which our device may be moved horizontally. The distance between the centers of said stanchions is about three feet. The height of our device is about eight feet from top to bottom, giving a corresponding distance through which said sliding arms 27 and 28 may be moved vertically. By combining the vertical movements of said sliding arms with the horizontal movements of our traveling frame, every point within the area traversed may be covered.

As to the utility of our device, it should be borne in mind that holding an operating pneumatic riveter in the hands of an operator jars his body in a very severe manner, frequently producing derangement of bodily functions of a dangerous character. By our device all the jar is borne by the traveling frame. Moreover there is an increase in the speed and accuracy of riveting.

In operating our device the operator simply pushes the frame into the required horizontal position and arms 27, and 28 in the required vertical position, directing the hammer against each rivet in turn.

By slipping eye-pins 13, 14, 25, 26, the whole device comes apart, and may be readily moved to a new position of rails and supporting pipe 19. Rails and pipe are readily moved to new positions on the staging and on the ship by means of brackets 20, 21, and clamps 9.

Boots 3, and 4, arranged as shown take up any jar caused by workmen walking over the staging.

We claim:

1. In a traveling frame for side-shell riveters, means for slidably supporting a tool-carrier comprising two stanchions each having a head carrying a grooved roller adapt-

ed to run on a bracket-track, a tie between said heads, boots adapted to fit loosely over the bottom portions of said stanchions having grooved wheels adapted to run on a stage-track a tie between said boots, sleeves slidable over said stanchions having hollow arms adapted to receive arms from said tool-holder, and counter-weights connected with said sleeves.

2. A traveling frame for side-shell riveters comprising two stanchions each having a head carrying a grooved roller adapted to run on a bracket track, means for tying said heads consisting of arms extending therefrom having eyes, a pipe adapted to receive said arms having eyes registrable with the eyes of said arms, and eye-bolts adapted to fit said eyes, boots adapted to fit loosely over the bottom portions of said stanchions carrying grooved wheels adapted to run on a stage-track, means for tying said boots consisting of arms thereon, a pipe, eyes and eye-bolts, sleeves slidable over said stanchions having hollow arms, a tool-carrier having arms adapted to enter said arms, and counterweights connected with said sleeves.

In testimony whereof I hereunto sign my name in the presence of two witnesses.

JAMES McINTYRE DOBBIE, SR.
JOHN McINTYRE DOBBIE.

Witnesses :
FRANK P. MEDINA,
E. G. MEDINA.